August 23, 2005

STATE WATER RESOURCES CONTROL BOARD
WORKSHOP SESSION—DIVISION OF WATER QUALITY
SEPTEMBER 7, 2005

ITEM 15

SUBJECT

CONSIDERATION OF A RESOLUTION APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE LOS ANGELES REGION TO INCORPORATE A TOTAL MAXIMUM DAILY LOAD FOR TOXICITY, CHLORPYRIFOS, AND DIAZINON IN THE CALLEGUAS CREEK WATERSHED AND MUGU LAGOON

DISCUSSION

The Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) adopted the revised Water Quality Control Plan for the Los Angeles Region (Basin Plan) under Resolution No. 94-07 on June 13, 1994. The State Water Resources Control Board (State Water Board) approved the revised Basin Plan on November 17, 1994, and by the Office of Administrative Law (OAL) on February 23, 1995.

The CCW(CCW) is located in southeast Ventura County and in a small portion of western Los Angeles County and drains an area of about 343 square miles from the Santa Susana Pass in the east to Mugu Lagoon in the southwest. Current land use is approximately 26 percent agriculture, 24 percent urban (mostly in the central Oxnard Plain), and 50 percent open space. Of fourteen segments or reaches of the CCW, the 2002 Clean Water Act (CWA) 303(d) list identified six reaches as impaired for water column toxicity, two for sediment toxicity, two for chlorpyrifos in fish tissue, and one for organophosphate pesticides in water.

A consent decree between the U.S. Environmental Protection Agency (USEPA), Heal the Bay Incorporated, and Baykeeper, Incorporated was approved on March 22, 1999 in response to litigation brought by the environmental groups relating to USEPA's progress in complying with section 303(d) of the federal CWA. This court order establishes a schedule that among other things requires completion of a Total Maximum Daily Load (TMDL) to reduce toxicity, chlorpyrifos, and diazinon in the CCW by March 22, 2006.

On July 7, 2005, the Los Angeles Water Board adopted Resolution No. R4-2005-009 (Attachment) to amend the Basin Plan with a TMDL to address water quality impairments of Calleguas Creek, including its tributaries, and Mugu Lagoon, caused by toxicity, sediment toxicity, and two pesticides: chlorpyrifos and diazinon. The TMDL specifies Load Allocations (LAs) and Wasteload Allocations (WLAs) that, when implemented, are expected to result in the attainment of applicable water quality standards. The Los Angeles Water Board goal in establishing the Calleguas Creek Toxicity TMDL is to determine and set forth measures needed to prevent impairment of water quality due to water column toxicity in all impaired reaches by requiring reductions in diazinon and chlorpyrifos from both point and nonpoint sources and by developing a numeric target for unknown causes of toxicity.

The Calleguas Creek stakeholders have been actively engaged with USEPA and the Los Angeles Water Board on a variety of watershed planning activities through the CCW Management Plan (CCWMP), an established stakeholder-lead watershed management group operating since 1996. The CCWMP includes broad participation from Federal, State and county agencies, municipalities, Publicly-Owned Treatment Work (POTWs), water purveyors, groundwater management agencies, and agricultural and environmental groups.

As part of its mission to address issues of long-range comprehensive water resources, the CCWMP proposed to the USEPA and the Los Angeles Water Board to take the lead on development of the TMDLs for the CCW.

Development of this TMDL included monitoring of a variety of constituents in water, sediment, and fish tissue during 2003-2004 (referred to as TMDL Work Plan monitoring). The purpose of the Work Plan monitoring was to augment previously existing data for the CCW, and perform analysis of this data with lower detection limits than much of the previously existing data, which significantly improves the understanding of current conditions in the CCW and also improves the capability for data analysis and modeling.

Los Angeles Water Board staff has helped develop a detailed technical document that analyzes and describes the specific necessity and rationale for the development of this TMDL. This document, titled "Calleguas Creek Watershed Toxicity TMDL", was prepared by Larry Walker and Associates as an integral part of this Los Angeles Water Board action. The document provides the detailed factual basis and analysis supporting the problem statement, numeric targets (interpretation of the narrative and numeric water quality objectives used to calculate the pollutant allocations), source analysis, linkage analysis, WLAs for point sources, LAs for nonpoint sources, margin of safety, and seasonal variations and critical conditions of this TMDL.

Concentration-based numeric targets included in the TMDL are:
1) Water toxicity (source not identified through Toxicity Identification Evaluation) = 1.0 Chronic Toxicity Unit (TUc), where TUc = 100/No Observed Effect Concentration (NOEC).
2) Sediment toxicity (source not identified through Toxicity Identification Evaluation) based on the definition of a toxic sediment sample as defined in the State Water Board September 2004 "Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List."
3) Chlorpyrifos in micrograms per liter (ug/L)

= freshwater	0.014 chronic(4 day avg)	= 0.025 acute(1 hr avg)
= saltwater	0.009 chronic(4 day avg)	= 0.02 acute(1 hr avg)

4) Diazinon in micrograms per liter (ug/L)

= freshwater	0.10 chronic(4 day avg)	= 0.10 acute(1 hr avg)
= saltwater	0.40 chronic(4 day avg)	= 0.82 acute(1 hr avg)

The numeric targets in this TMDL are not water quality objectives and do not create new bases for enforcement against dischargers apart from the water quality objectives that they translate. The targets establish the bases through which LAs and WLAs are calculated. WLAs are only enforced for a discharger's own discharges and then only in the context of its National Pollutant Discharge Elimination System (NPDES) permit, which must be consistent with the assumptions and requirements of the WLA. The Los Angeles Water Board will develop permit requirements through a subsequent permit action that will allow all interested persons, including but not limited to municipal storm water dischargers, to provide comments on how the WLAs will be translated into permit requirements.

The Implementation Plan includes: 1) WLAs (unknown source toxicity, chlorpyrifos, and diazinon) are established for the major point sources, including POTWs and Urban Stormwater Co-Permittees (MS4); plus minor point sources in the CCW and will be implemented through NPDES permit effluent limits. POTWs affected include Hill Canyon Wastewater Treatment Facility, Simi Valley Water Quality Control Plant, Ventura County Wastewater Treatment Plant, Camarillo Wastewater Treatment Plant, and Camrosa Wastewater Reclamation Facility. The WLAs will be included in NPDES permits according to the compliance schedules provided. The Los Angeles Water Board may revise these WLAs based on additional information as described in the Special Studies and Monitoring Section of the Technical Report.

2) The toxicity WLAs will be implemented in accordance with USEPA, State Water Board, and Los Angeles Water Board resolutions, guidance and policy in effect at the time of permit issuance or renewal. Currently, these WLAs would be implemented as a trigger for initiation of the Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE) process as outlined in USEPA's "Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the NPDES Program (2000)" and current NPDES permits held by dischargers to the CCW. 3) Storm water WLAs will be incorporated into the NPDES permit as receiving water limits measured in-stream at the base of each sub-watershed and will be achieved through the implementation of Management Practices (MPs) as outlined below. Evaluation of progress of the TMDL will be determined through the measurement of in-stream water quality and sediment at the base of each of the CCW subwatersheds. The Los Angeles Water Board may revise WLAs based on additional information developed through special studies and/or monitoring conducted as part of this TMDL. The TMDL specifies that achievement of WLAs is expected two years after effective date of the TMDL. 4) The following implementation actions will be taken by POTWs and MS4s discharging to the CCW:

- Plan, develop, and implement an urban pesticides public education program;
- Plan, develop, and implement urban pesticide education and chlorpyrifos and diazinon collection program;
- Study diazinon and chlorpyrifos replacement pesticides for use in the urban environment; and,
- Conduct environmental monitoring as outlined in the Monitoring Plan and NPDES permits.

LAs for chlorpyrifos and diazinon will be implemented through the State's Nonpoint Source Pollution Control Program (NPSPCP). The Los Angeles Water Board is currently developing a Conditional Waiver for Irrigated Lands. Once adopted, the Conditional Waiver Program will implement LAs and attain numeric targets of this TMDL. Compliance with LAs will be measured at the monitoring sites approved by the Executive Officer of the Los Angeles Water Board through the monitoring program developed as part of the Conditional Waiver, or if the Conditional Waiver is delayed, through a monitoring program that is required by this TMDL. The toxicity LAs will be implemented in accordance with USEPA, State Water Board, and Los Angeles Water Board resolutions, guidance and policy at the time of permit or waiver issuance or renewal. Achievement of Final LAs is expected ten years after effective date of the TMDL.

5) The following implementation actions will be required of agriculture dischargers in the CCW:

- Enroll for coverage under a waiver of waste discharge requirements for irrigated lands;
- Implement monitoring required by this TMDL and the Conditional Waiver program;
- Complete studies to determine the most appropriate MPs given crop type, pesticide, site specific conditions, plus the critical condition defined in the development of the LAs; and,
- Implement appropriate MPs and monitor to evaluate effectiveness on in-stream water and sediment quality.

In addition to the implicit Margin of Safety (MOS) achieved by conservative assumptions and by using a concentration based TMDL, an explicit MOS of 5 percent has been added to the targets for chlorpyrifos in the Calleguas and Revolon subwatersheds to address uncertainty in the linkages between the water column criteria and fish tissue and sediment concentrations. The Calleguas and Revolon subwatersheds include those reaches listed for sediment toxicity and chlorpyrifos in fish tissue.

State Water Board staff review of the proposed amendment identified items that required clarification subsequent to Los Angeles Water Board adoption. Los Angeles Water Board Resolution No. R4-2005-009 authorizes the Los Angeles Water Board Executive Officer to make minor, non-substantive corrections to the language of the amendment, if needed for clarity or consistency. The Los Angeles Water Board Executive Officer made the necessary non-substantive clarifications to the amendment.

POLICY ISSUE

Should the State Water Board approve the amendment to the Basin Plan in accordance with the Staff Recommendation below?

FISCAL IMPACT

The Los Angeles Water Board and the State Water Board staff work associated with or resulting from this action can be accommodated within budgeted resources.

REGIONAL WATER BOARD IMPACT

Yes, the Los Angeles Water Board.

STAFF RECOMMENDATION

That the State Water Board:

1. Approves the amendment to the Basin Plan as adopted under the Los Angeles Water Board Resolution No. R4-2005-009 and as corrected by the Regional Board Executive Officer.

2. Authorizes the Executive Director to submit the amendment adopted under Los Angeles Water Board Resolution No. R4-2005-009, as approved, and the administrative record for this action to OAL and the TMDL to USEPA for approval.

DRAFT August 23, 2005

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2005-

APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE LOS ANGELES REGION TO INCORPORATE A TOTAL MAXIMUM DAILY LOAD FOR TOXICITY, CHLORPYRIFOS, AND DIAZINON IN THE CALLEGUAS CREEK WATERSHED AND MUGU LAGOON

WHEREAS:

1. The Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) adopted the revised Water Quality Control Plan for the Los Angeles Region (Basin Plan) under Resolution No. 94-07 on June 13, 1994. The State Water Resources Control Board (State Water Board) approved the revised Basin Plan on November 17, 1994 and by the Office of Administrative Law (OAL) on February 23, 1995.

2. A consent decree between the U.S. Environmental Protection Agency (USEPA), Heal the Bay, Incorporated and Baykeeper, Incorporated was approved on March 22, 1999. This court order establishes a requirement to establish a Total Maximum Daily Load (TMDL) to reduce toxicity, chlorpyrifos, and diazinon in the CCW by March 22, 2006.

3. On July 7, 2005, the Los Angeles Water Board adopted Resolution No. R4-2005-009 (Attachment) to incorporate a TMDL for toxicity, chlorpyrifos, and diazinon in Calleguas Creek, its tributaries, and Mugu Lagoon.

4. Los Angeles Water Board Resolution No. R4-2005-009 delegated to its Executive Officer authority to make minor, non-substantive corrections to the adopted amendment if needed for clarity or consistency. The State Water Board staff finds that provisions of the amendment, as adopted, warranted minor, non-substantive clarification of the language of various provisions. The Los Angeles Water Board Executive Officer has made the necessary corrections to the amendment.

5. The State Water Board finds that the amendment is in conformance with the requirements for TMDL development specified in section 303(d) of the federal Clean Water Act and State Water Board Resolution No. 68-16, and is an appropriate program of implementation pursuant to Water Code section 13242.

6. The State Water Board finds that the Basin Plan amendment is in conformance with the requirements of Water Code section 13240, which specifies that Regional Water Quality Control Boards shall periodically review and may revise the Basin Plans.

7. The Basin Plan amendments do not become effective until approved by the State Water Board and until the regulatory provisions are approved by OAL. In addition, TMDLs must be approved by the USEPA.

THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. Approves the amendment to the Basin Plan as adopted under the Los Angeles Water Board Resolution No. R4-2005-009 as corrected by the Regional Board Executive Officer.

2. Authorizes the Executive Director to submit the amendment adopted under Los Angeles Water Board Resolution R4-2005-009, as approved, and the administrative record for this action to OAL and the TMDL to USEPA for approval.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on September 22, 2005.

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Debbie Irvin
Clerk to the Board

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